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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,201	10/05/2006	Yoshikazu Nakayama	P30465	1103

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EXAMINER	
SUAREZ, FELIX E	
ART UNIT	PAPER NUMBER
2857	

NOTIFICATION DATE	DELIVERY MODE
05/01/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
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Office Action Summary	Application No.	Applicant(s)	
	10/598,201	NAKAYAMA ET AL.	
	Examiner	Art Unit	
	FELIX E. SUAREZ	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated over Nakayama et al. (WO 2003/087856). (An English translation has been attached for help in understanding the Japanese document JP 03/087856).

With respect to claims 1 and 7-9, Nakayama et al. (hereafter Nakayama) teaches a network analyzer (or a method or a program of instructions to perform a processing or a computer readable medium) comprising:

a measuring system error factor recorder that records a measuring system error factor generated independently of a frequency conversion by a device under test (see page 18, lines 16-27, measuring predetermined parameters concerned the device under test (DUT); and the measurement system error factors);

a correction coefficient outputter that outputs measured first coefficients and second coefficients of a correction frequency converting element (see page 19, lines 4-14, amendment of the error by the proofreading tool; and page 32 line

33 to page 33 line 8, an automatic proofreading being connected to a network analyzer) wherein a signal output from one terminal is represented as a sum of a product of a signal input to the terminal and the first coefficient and a product of a signal input to the other terminal and the second coefficient, and a ratio of the magnitudes of the second coefficients is constant (see page16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S11a, S21a, S12a, and S22a); and

a transmission tracking error acquirer that acquires a transmission tracking error generated by the frequency conversion based on the measuring system error factor recorded in said measuring system error factor recorder, and the first coefficients and the second coefficients output by said correction coefficient outputter (see page 17, lines 21-31, the signal output acquiring element acquires the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors. Errors result from frequency tracking).

With respect to claim 2, Nakayama further teaches that, if the first coefficients are M11' and M22', the second coefficients are M12' and M21', a signal input to a first terminal is a1, a signal output from the first terminal is b1, a signal input to a second terminal is a2, and a signal output from the second terminal is b2 in said correction frequency converting element,

b1 = M11'xa1 + M12'xa2

b2 = M21'xa1 + M22'xa2, and

$|M12'|/|M21'|$ is constant

(see page16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S11a, S21a, S12a, and S22a; and FIG. 12, DUT 2, points 2a, 2b, related to f1 and f2 S-Parameters).

With respect to claims 3 and 10, Nakayama further teaches that, the magnitudes of the second coefficients are the same for either of the terminals (see page16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S11a, S21a, S12a, and S22a; and FIG. 12, DUT 2, points 2a, 2b, related to f1 = f2 S-Parameters).

With respect to claims 4 and 11-13, Nakayama further teaches, comprising:

an input signal measurer that measures an input signal parameter relating to an input signal input to the device under test before the measuring system error factor is generated (see page 30, lines 22-24, input signal measuring element relate to a DUT);

a plurality of ports that are connected to a terminal of the device under test, and output the input signal (see page 31, lines 27-34, DUT 2 with multiple terminal connectors, to connect the network analyzer; and FIG. 1 ITEM DUT 2); and

a device-under-test signal measurer that measures a device-under-test signal parameter relating to a device-under-test signal input from the terminal of the device under test to said port (see page 31, lines 27-34, DUT 2 with multiple terminal connectors, to connect the network analyzer; and FIG. 1 ITEM DUT 2).

With respect to claims 5 and 14-16 Nakayama further teaches, said correction coefficient outputter acquires the first coefficients and second coefficients of said correction frequency converting element according to a ratio of the input signal parameter measured by said input signal measurer and the device-under-test signal parameter measured by said device-under-test signal measurer (see page 33, lines 9-21; and FIGS. 4, 5, ratio measurement data from a receiver (RS) 16a / measurement data from the receiver (TS)16b or DUT in a correction tool to give corrected error factor variables).

With respect to claims 6 and 17-19, Nakayama further teaches, said transmission tracking error acquirer acquires the transmission tracking error based on a ratio of error factors generated in a passage from the device-under-test signal being output from the terminal of the device under test without the

frequency conversion to the device-under-test signal being received by said device-under-test signal measurer (see page 38, lines 27-34; FIG. 12, case that, the input signal output from the signal outputting 12 is given to the DUT 2 directly; and page 40, lines 2-20, ratio mathematical formula 6).

Response to Arguments

2. Applicant's arguments with respect to the claims have been fully considered but they are not persuasive.

Applicants' primary argument for independent claims is that,

"The Examiner appears to relate S12a and S21a in Figure 2 of the '856 publication to the magnitudes of the second coefficients. However, the Nakayama et al. (WO 2003/087856) *(hereafter Nakayama '856)* publication does not teach or suggest, inter alia, that the "ratio of the magnitudes of the second coefficients is constant," as recited in the independent claims" (see Applicant's REMARKS page 2 last paragraph and its continuation on page 3).

The Examiner disagrees.

Nakayama '856 teaches in a network analyzer that, the S parameters and frequency characteristics of the device under test DUT can be acquired by measuring the signal received by a receiver (see Nakayama, page 17 lines 3-7).

Nakayama '856 also teaches that, for the case of a frequency equality f1=f2 in Figure 21 shows acquired, S11m the S parameter of the DUT, and S11a

the true S parameter of the DUT without any measurement system errors (see Nakayama '856 page 17, lines 8-16).

The Examiner considers that for equal frequency f1=f2, as shown in Figure 21 all elements in the circuit are known and any mathematical relation can be execute, such as ratio between parameters.

The examiner considers that the S parameters for equal frequencies on both terminals the coefficient applied to the frequency at any terminal should be the same applied to terminal, because the frequency applied is equal to the same circuit.

With respect to claim 2, the applicant argues that, the Nakayama '856 publication does not teach or even suggest, inter alia, that "|M12'|/|M21'| is constant' wherein M12' and M21 are the second coefficients (see Applicant's REMARKS page 3, last paragraph).

The Examiner disagrees.

Nakayama '856 teaches in FIG. 12, the S parameters S11m, S12m, side of f1; and S21m, S22m at f2 side.

The Examiner considers that the S parameters are matrix form parameters; and as a frequency function can be written such as applicant's general matrix formulas; and the coefficient between both terminals for equal frequency f1=f2, S12 should be equal to S21 and the ratio (S12)/(S21)=(S21)/(S12)=1; as desired.

Conclusion

Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakayama et al. [U.S. Patent No. 6,496,785] describes a measuring system error factors.

Haruta et al. [U.S. Patent Application Publication No. 2005/0289392] describes a measurement system error factor acquisition.

Haruta et al. [U.S. Patent Application Publication No. 2007/0029989] describes an error factor acquisition device and recording medium.

Nakayama et al. [U.S. Patent Application Publication No. 2006/0005065] describes a measuring system error factors, and automatic corrector.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix Suarez, whose telephone number is (571) 272-2223. The examiner can normally be reached on weekdays from 8:30 a.m. to 5:00 p.m.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications and for After Final communications.
April 23, 2008

/Felix E Suarez/
Examiner, Art Unit 2857

/Eliseo Ramos-Feliciano/
Supervisory Patent Examiner, Art Unit 2857

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/598,201	NAKAYAMA ET AL.	
	Examiner	Art Unit	
	FELIX E. SUAREZ	2857	